

**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

9

Application Number	10/709,236
Filing Date	04/23/2004
First Named Inventor	Cheng-Tung Huang
Art Unit	2813
Examiner Name	NGUYEN, TUAN H
Attorney Docket Number	NAUP0464USA

ENCLOSURES (Check all that apply)

<input checked="" type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Reply to Missing Parts/Incomplete Application <input type="checkbox"/> Reply to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation <input type="checkbox"/> Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____ <input type="checkbox"/> Landscape Table on CD	<input type="checkbox"/> After Allowance Communication to TC <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input type="checkbox"/> Other Enclosure(s) (please identify below): 1. The cover page of Patent No. 6,955,929 2. The Notice of Recordation of Patent No. 6,955,929 3. The Deposit Account Statement of Deposit Account 50-3105
Remarks _____		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	North America Intellectual Property Corporation		
Signature	<i>Winston Hsu</i>		
Printed name	Winston Hsu		
Date	MAY 22 2006	Reg. No.	41,526

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Signature	<i>Alison Wu</i>		
Typed or printed name	Alison Wu	Date	MAY 22 2006

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/17 (12-04v2)

Approved for use through 07/31/2006. OMB 0651-0032

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Effective on 12/08/2004.

Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL

For FY 2005

☐ Applicant claims small entity status. See 37 CFR 1.27TOTAL AMOUNT OF PAYMENT (\$)**100.00****Complete if Known**

Application Number	10/709,236
Filing Date	04/23/2004
First Named Inventor	Cheng-Tung Huang
Examiner Name	NGUYEN, TUAN H
Art Unit	2813
Attorney Docket No.	NAUP0464USA

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify): _____☒ Deposit Account Deposit Account Number: **50-3105** Deposit Account Name: North America Intellectual Property Corporation

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

☒ Charge fee(s) indicated below ☐ Charge fee(s) indicated below, **except for the filing fee**☒ Charge any additional fee(s) or underpayments of fee(s) under 37 CFR 1.16 and 1.17 ☒ Credit any overpayments

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FEE CALCULATION**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Small Entity	Fee (\$)	Small Entity	Fee (\$)	Small Entity	Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES

Fee Description	Fee (\$)	Small Entity Fee (\$)
Each claim over 20 (including Reissues)	50	25
Each independent claim over 3 (including Reissues)	200	100
Multiple dependent claims	360	180
Total Claims	Extra Claims	Fee (\$)
- 20 or HP = _____ x _____ = _____		
HP = highest number of total claims paid for, if greater than 20.		
Indep. Claims	Extra Claims	Fee (\$)
- 3 or HP = _____ x _____ = _____		
HP = highest number of independent claims paid for, if greater than 3.		

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
- 100 = _____ / 50 _____ (round up to a whole number) x _____ = _____				

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)	Fees Paid (\$)
Other (e.g., late filing surcharge): <u>Request Certificate of Correction</u>	100.00

SUBMITTED BY

Signature <u>Winston Hsu</u>	Registration No. (Attorney/Agent) 41,526	Telephone 3027291562
Name (Print/Type) Winston Hsu	Date MAY 22 2006	

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent No.: US 6,955,929 B2 Issue Date: 10/18/2005
Inventors : Cheng-Tung Huang et al.
Examiner: NGUYEN, TUAN H
App. No.: 10/709,236 Filing Date: 04/23/2004
Art Unit: 2813 Docket No.: NAUP0464USA

Title: METHOD OF MEASURING A GATE CHANNEL LENGTH OF A
METAL-OXIDE SEMICONDUCTOR TRANSISTOR

To: Commissioner for Patents
P.O. BOX 1450
Alexandria, VA 22313-1450

Subject: Petition under 37 CFR 1.183 and
Request for Certificate of Correction under 37 CFR 1.323

Dear Sir,

Upon reviewing the cover page of the above-identified patent, it is noticed that the inventorship is incorrect, because the third inventor Chien-Chieh Huang was missed (Attachment 1). The undersigned agent missed to list Chien-Chieh Huang as one of the actual inventors while filing the above-identified application. The actual inventors of the above-identified patent should be

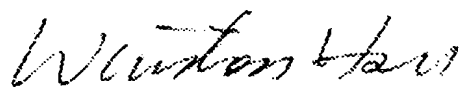
Cheng-Tung Huang, Kao-Hsiung (TW);
Sheng-Hao Lin, Hsin-Chu Hsien (TW);
Chien-Chieh Huang, Taipei City (TW)
Nien-Chung Li, Hsin-Chu (TW);
Yi-Cheng Sheng, Hsin-Chu (TW)

Failure to provide correct inventorship was inadvertent, but without any deceptive intention. The undersigned agent submitted the Recordation form cover

sheet and the assignment document and the request to correct inventorship under 37 CFR 1.324 to the USPTO on 01/17/2006. The assignment document was recorded on 01/17/2006 and Chien-Chieh Huang was added into the assignors successfully (Attachment 3). Although the processing fee for correcting inventorship in a patent was deducted from the deposit account no 50-3105 on 01/19/2006 (Attachment 2), Chien-Chieh Huang has not been added into the inventors so far. And the undersigned agent filed a status inquiry about the request to correct inventorship under 37 CFR 1.324 on 05/19/2006 (Attachment 4).

The undersigned agent hereby requests that a Certificate of Correction be issued under 37 CFR 1.323 and submits the fee \$100.00 set forth in 37 CFR 1.20(a) herewith. Please correct the inventorship and add Chien-Chieh Huang as the third inventor as soon as possible. Thank you.

Respectfully submitted,



Date: MAY 22 2006

Winston Hsu, Patent Agent No. 41,526

P.O. BOX 506, Merrifield, VA 22116, U.S.A.

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Note: Please leave a message in my voice mail if you need to talk to me. (The time in D.C. is 12 hours behind the Taiwan time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)



US006955929B2

(12) **United States Patent**
Huang et al.

(10) Patent No.: **US 6,955,929 B2**
(45) Date of Patent: **Oct. 18, 2005**

(54) **METHOD OF MEASURING A GATE
CHANNEL LENGTH OF A METAL-OXIDE
SEMICONDUCTOR TRANSISTOR**

(58) Field of Search 438/14, 17, 197,
438/199, 18; 257/48

(75) Inventors: **Cheng-Tung Huang, Kao-Hsiung**
(TW); **Sheng-Hao Lin, Hsin-Chu Hsien**
(TW); **Nien-Chung Li, Hsin-Chu (TW);**
Yi-Cheng Sheng, Hsin-Chu (TW)

(56) **References Cited**

U.S. PATENT DOCUMENTS

2002/0001899 A1 * 1/2002 Ito 438/231
2003/0224545 A1 * 12/2003 Chung et al 438/17

* cited by examiner

Primary Examiner—Tuan H. Nguyen

(74) Attorney, Agent, or Firm—Winston Hsu

(73) Assignee: **United Microelectronics Corp.,**
Hsin-Chu (TW)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **10/709,236**

(22) Filed: **Apr. 23, 2004**

(65) **Prior Publication Data**

US 2004/0214356 A1 Oct. 28, 2004

(30) **Foreign Application Priority Data**

Apr. 25, 2003 (TW) 92109797 A

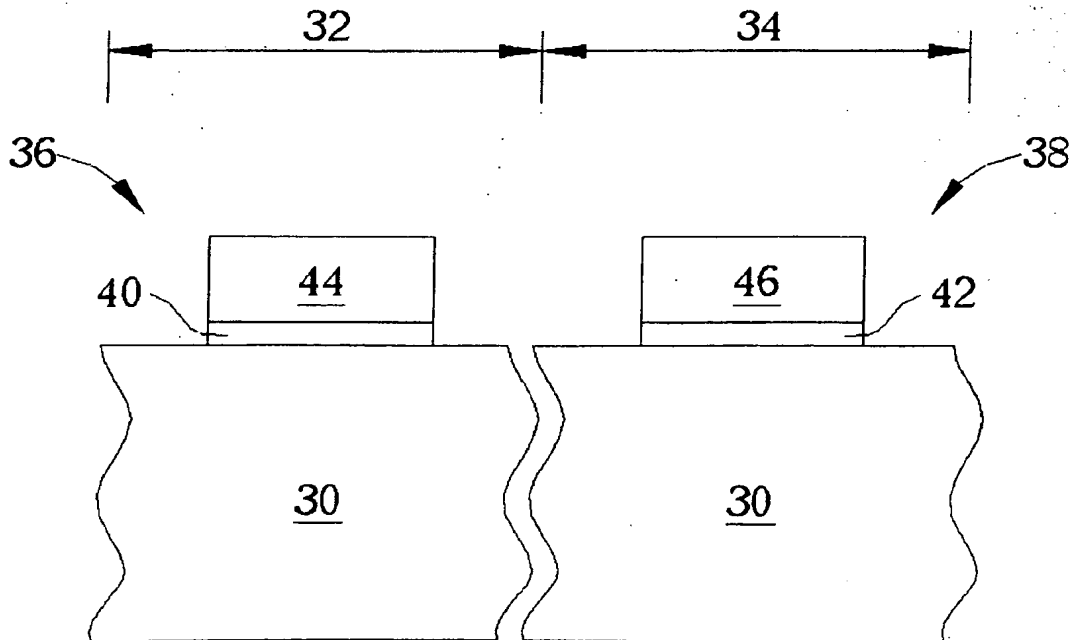
(51) Int. Cl.⁷ **H01L 21/66**

(52) U.S. Cl. **438/14; 438/17**

(57) **ABSTRACT**

A predetermined voltage is applied respectively on a first gate of a first metal-oxide semiconductor (MOS) transistor with a known channel length and a second gate of a second MOS transistor with an unknown channel length. A first inverse gate leakage current of the first MOS transistor and a second inverse gate leakage current of the second MOS transistor are then measured. By using the first and second inverse gate leakage currents, the channel widths of the first and the second gates, the channel length of the first gate and an equation, the channel length of the second gate is obtained.

19 Claims, 3 Drawing Sheets



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Please add
"Chien-Chieh Huang" as
the third inventor
- Thank you.



NAU-464

UNITED STATES PATENT AND TRADEMARK OFFICE

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

APRIL 14, 2006

PTAS
NORTH AMERICA INTELLECTUAL PROPERTY CORP
P.O. BOX 506
MERRIFIELD, VA 22116



103162625A

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RECORDATION DATE: 01/17/2006

REEL/FRAME: 017468/0752 ✓
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:
HUANG, CHENG-TUNG

DOC DATE: 12/13/2005

ASSIGNOR:
LIN, SHENG-HAO

DOC DATE: 12/13/2005

ASSIGNOR:
HUANG, CHIEN-CHIEH

DOC DATE: 12/13/2005

ASSIGNOR:
LI, NIEN-CHUNG

DOC DATE: 12/13/2005

ASSIGNOR:
SHENG, YI-CHENG

DOC DATE: 12/13/2005

ASSIGNEE:

UNITED MICROELECTRONICS CORP.
NO. 3, LI-HSIN ROAD 2, SCIENCE-
BASED PARK
HSIN-CHU CITY, TAIWAN R.O.C.

SERIAL NUMBER: 10709236

FILING DATE: 04/23/2004

PATENT NUMBER: 6955929

ISSUE DATE: 10/18/2005

TITLE: METHOD OF MEASURING A GATE CHANNEL LENGTH OF A METAL-OXIDE
SEMICONDUCTOR TRANSISTOR

PAULA MCCRAY, EXAMINER
ASSIGNMENT SERVICES BRANCH
PUBLIC RECORDS DIVISION

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Fax To: NGUYEN, TUAN H		Tel: (571) 272-1694	
Art Unit: 2813		Fax: (571) 273-8300	
From: Winston Hsu, Registration No. 41,526			
Serial No.: 10/709,236			
Attorney Docket No.: NAUP0464USA			
Subject: Status Inquiry of Request to correct inventorship under 37 CFR 1.324			
Total Pages: 7 pages (including cover page)			
Winston Hsu		MAY 19 2006	
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PAGE 17 * RCVD AT 5/19/2006 6:03:56 AM [Eastern Daylight Time] * SVR:USPTO-EPXDF-642 * DNS:2738300 * CSD:18064986673 * DURATION (min-ss):03-18			